

## REMARKS

The Office Action mailed September 11, 2002, has been carefully considered. The present Response is intended to be a complete response thereto and to place the case in condition for allowance. The present Response is intended as a reply required under 37 C.F.R. § 1.137(b)(1) and is submitted concurrently with the Petition for Revival.

Claims 11-18 are pending. Claims 1-10 have been cancelled.

### THE CLAIMS ARE NOT OBVIOUS

Claims 11-12, 14, and 16 stand rejected under 35 U.S.C. § 103(a) as being obvious over Tamura et al. (U.S. Patent No. 5,492,792). Claims 11-12, 14, and 16 stand rejected under 35 U.S.C. § 103(a) as being obvious over Tamura et al. in view of Sasakawa et al. (U.S. Patent No. 5,283,094). Claims 11-12, 14, and 16 stand rejected under 35 U.S.C. § 103(a) as being obvious over Tamura et al. in view of Sasakawa et al., and further in view of Sato et al. (U.S. Patent No. 4,752,554). Claims 11-18 are rejected under 35 U.S.C. § 103(a) as being obvious over Tamura et al. in view of Sasakawa et al., and further in view of Sato et al. and Suzuki (U.S. Patent No. 4,904,574). Applicant respectfully traverses the rejections.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP 2143.

First, the references, taken alone or in combination, fail to disclose every element of the claimed invention. In particular, the references fail to disclose an adhesive that prevent the “formation on an inter-layer boundary of non-fluorescent poly-molecular associates of fluorescent dyes causing quenching of fluorescence.” The present application relates to an optical memory disc that is read by means of fluorescence. In using the optical memory disc of the present invention, a laser is used to read the disc. The disc fluoresces in response to the laser and information is gathered by reading the emitted fluorescence.

Tamura et al. does not teach an adhesive that prevent quenching of fluorescence. In column 27, lines 30-53, Tamura et al. teach an undercoat layer for various purposes, including for improving adhesion between the substrate and the recording layer; however, Tamura et al. fail to disclose that the adhesion is such that it prevents formation, on an inter-layer boundary, of non-fluorescent poly-molecular associates of fluorescent dyes that causes quenching of fluorescence. Any adhesive will do for Tamura et al. On the other hand, the present invention requires an adhesive that prevents fluorescence quenching. This deficiency is not satisfied by Sasakawa et al., Sato et al., and Suzuki, so that the combined references would not have resulted in the present claimed invention.

Further, there is no motivation to modify Tamura et al. to arrive at the present invention; i.e., there is no motivation to have an adhesive that prevents fluorescence quenching in the memory medium of Tamura et al. Although Tamura et al. disclose an undercoat layer for improving adhesion between the substrate and the recording layer, any adhesive will do for Tamura et al. On the other hand, the present invention requires an adhesive that prevents formation, on an inter-layer boundary, of non-fluorescent poly-molecular associates of fluorescent dyes that causes quenching of fluorescence. Thus, the adhesive of the present

invention is a non-obvious species of the adhesive of Tamura et al. *See In re Baird*, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994); and *In re Jones*, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992).

To understand why the adhesive of the present invention is not an obvious species of the adhesive of Tamura et al., it is necessary to examine the purpose to the memory devices. The optical memory disc of the present invention is read by detecting fluorescence. To do so reliably, the fluorescence must be stable. Therefore, fluorescence quenching is a detriment to the present invention; and the prevention of quenching is of the utmost importance.

On the other hand, the memory medium of Tamura et al. contains dyes so that pits can be created using light energy for recording purposes (see column 1, line 50 to column 2, line 7). The recording is then read through refraction of light commonly used in the art. Such method is used in the common CD-ROM drives. The memory medium of Tamura et al. does not use fluorescence for reading; nor are the media of Sasakawa et al. and Sato et al. Thus, fluorescence quenching has no effect on the memory media of the cited references. Therefore, one of ordinary skill in the art, faced with the disclosures of Tamura et al., Sasakawa et al., and Sato et al, would not have any motivation to prevent fluorescence quenching because it is not important in the system used by Tamura et al.

On page 3 of the Office Action, the Examiner alleges that intended use is not relevant to the claims at hand. Applicant respectfully submits that intended use is employed here to show that there is no motivation to modify the prior art references to arrive at the present invention, not to show the presence of a claimed element not disclosed by the cited prior art. Applicant has discovered that the build up of non-fluorescent poly-molecular associates of the fluorescent dye at the interlayer boundary causes fluorescence quenching, and that proper adhesion of the fluorescent composition to the substrate or the primer layer can prevent the formation of non-

fluorescent poly-molecular associates of the fluorescent dye on the interlayer boundary. Thus, applicant has discovered a way to improve the fluorescent signal of a fluorescent optical memory disc (fluorescent reading). This problem is clearly not appreciated by the cited references because those references use reflectance reading rather than fluorescence reading. Thus, there is no motivation to modify the cited references to arrive at the present invention.

Therefore, because the cited references fail to teach every element of the claimed invention and fail to provide a motivation to arrive at the present invention, the claims are not obvious within the meaning of 35 U.S.C. § 103. Accordingly, the rejections are improper and should be withdrawn.

## CONCLUSION

Applicant has responded to the Office action mailed January 10, 2002. All pending claims are now believed to be allowable and favorable action is respectfully requested.

In the event that there are any questions relating to this Amendment or to the application in general, it would be appreciated if the examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (109289-00121). In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this response, applicant hereby petitions under 37 C.F.R. 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fees due are authorized above.